

Amendments to the Abstract:

Please replace the abstract with the following:

A sensor system ~~is disclosed~~ for a buried waste containment site having a bottom wall barrier and/or sidewall barriers, for containing hazardous waste. The sensor system includes one or more sensor devices disposed in one or more of the barriers for detecting a physical parameter either of the barrier itself or of the physical condition of the surrounding soils and buried waste, and for producing a signal representing the physical parameter detected. Also included is a signal processor for receiving signals produced by the sensor device and for developing information identifying the physical parameter detected, either for sounding an alarm, displaying a graphic representation of a physical parameter detected on a viewing screen and/or a hard copy printout. The sensor devices may be deployed in or adjacent the barriers at the same time the barriers are deployed and may be adapted to detect strain or cracking in the barriers, leakage of radiation through the barriers, the presence and leaking through the barriers of volatile organic compounds, or similar physical conditions.